

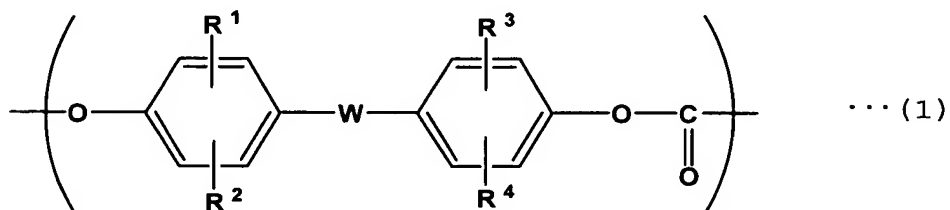
CLAIMS

1. A polycarbonate decomposition method comprising decomposing a polycarbonate with water in a supercritical or subcritical state.

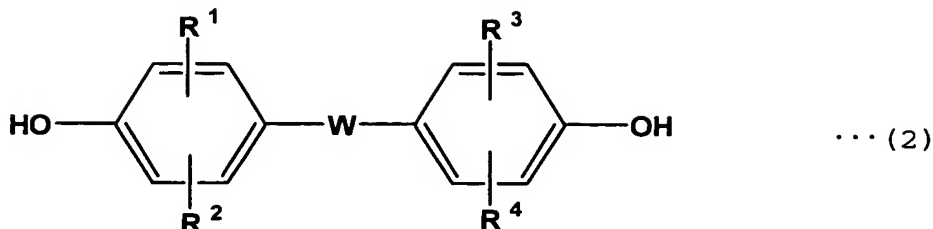
2. The decomposition method according to claim 1, wherein the polycarbonate is a polycarbonate contained in a thermoplastic composition containing the polycarbonate.

3. The decomposition method according to claim 1, wherein the polycarbonate is an aromatic polycarbonate and its decomposed product is an aromatic dihydroxy compound.

4. The decomposition method according to claim 3, wherein the aromatic polycarbonate comprises a recurring unit represented by the following formula (1):



wherein R^1 , R^2 , R^3 and R^4 are each independently a hydrogen atom, alkyl group having 1 to 10 carbon atoms, cycloalkyl group having 6 to 10 carbon atoms, aryl group having 6 to 10 carbon atoms, aralkyl group having 7 to 10 carbon atoms or halogen atom, W is a single bond, alkylene group having 1 to 10 carbon atoms, alkylidene group having 2 to 10 carbon atoms, cycloalkylene group having 6 to 10 carbon atoms, cycloalkylidene group having 6 to 10 carbon atoms, alkylene-arylene-alkylene group having 8 to 15 carbon atoms, oxygen atom, sulfur atom, sulfoxide group or sulfone group, and the decomposed product is an aromatic dihydroxy compound represented by the following formula (2):



wherein R^1 , R^2 , R^3 , R^4 and W are as defined in the above formula (1).

- 5 5. The decomposition method according to claim 3, wherein the aromatic dihydroxy compound is recovered by crystallization.

6. The decomposition method according to claim 1, wherein
 10 the ion product K_w of water in a supercritical or subcritical state is $10^{-15} \text{ mol}^2/\text{kg}^2$ or less.

7. The decomposition method according to claim 1, wherein
 15 the dielectric constant of water in a supercritical or subcritical state is 10 or less.

8. The decomposition method according to claim 1, wherein decomposition is carried out at a temperature of 374 to 500°C.

- 20 9. The decomposition method according to claim 1, wherein decomposition is carried out at a pressure of 18 to 40 MPa.

10. An aromatic dihydroxy compound aqueous solution containing 1 wt% or less of an aromatic dihydroxy compound
 25 dissolved in water at a temperature of 10 to 100°C and a pressure of 0.1 to 10 MPa.